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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,378	10/16/2003	Chia-Tin Chung	87141181.2001DV	2145

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EXAMINER

QUARTERMAN, KEVIN J

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/687,378

Applicant(s)

CHUNG ET AL.

Examiner

Kevin Quarterman

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-15, 17-23, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 16 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/731,314.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0104</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The following title is suggested: --ORGANIC ELECTROLUMINESCENT DISPLAY WITH INSULATING RAMPARTS AND METHOD FOR MAKING SAME--.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference characters "300" and "310" of Figs. 2A and 2B are not mentioned in the description. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 12-15, 17-23, and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagayama (US 5,701,055).

6. Regarding independent claim 12, Figure 21 of Nagayama shows an organic electroluminescent display comprising a plurality (Fig. 2) of parallel first display electrodes (3) on a substantially transparent substrate (2); an opaque insulating layer (40) formed over the substrate and partially exposing the first display electrodes, wherein the opaque insulating layer includes a plurality of slots (not labeled); a plurality of insulating ramparts (7) located on the display electrodes and protruding from the slots of the opaque insulating layer; an organic electroluminescent material (8) disposed on exposed regions of the first display electrodes; and a plurality of second display electrodes (9) located on the organic electroluminescent material, the second display electrodes being perpendicular to the first display electrodes (Fig. 2).

7. Regarding claim 13, Figure 21 of Nagayama shows the insulating ramparts extending in overhang portions having a tapered section, a side of the tapered section forming an angle of about 40-80 degrees with the substrate.

8. Regarding claim 14, Nagayama discloses the thickness of the insulating ramparts being in a range of about 1-5 $\mu$ m (col. 7, ln. 18-19).

9. Regarding claim 15, Figure 21 of Nagayama shows cross-linking being in a greater amount in a portion of the insulating ramparts in proximity to the substrate than in a portion of the insulating ramparts further away from the substrate.

10. Regarding claim 17, Nagayama discloses the opaque insulating layer having a thickness of about 1-2 $\mu$ m (col. 16, ln. 10-12).

11. Regarding claim 18, Nagayama discloses the slots of the opaque insulating layer having a width of about 5-30 $\mu$ m (col. 10, ln. 64-66).

12. Regarding claim 19, Nagayama discloses the insulating ramparts being made of a photoresist material (col. 8, ln. 28-29).

13. Regarding independent claim 20, Figure 21 of Nagayama shows an organic electroluminescent display comprising a first display electrode (3) on a substantially transparent substrate (2); a pattern of opaque insulating layer (40) disposed on the first display electrode; a pattern of insulating ramparts (7) placed on the first display electrode, wherein the insulating ramparts have overhang portions overlapping the pattern of opaque insulating layer; an organic electroluminescent material (8) located on the first display electrode between the insulating ramparts; and a second display electrode (9) located on the organic electroluminescent material.

14. Regarding claim 21, Figure 21 of Nagayama shows the insulating ramparts extending into overhang portions having a tapered section, a side of the tapered section forming an angle of about 40-80 degrees with the substrate.

15. Regarding claim 22, Nagayama discloses the thickness of the insulating ramparts being in a range of about 1-5 $\mu$ m (col. 7, ln. 18-19).

16. Regarding claim 23, Figure 21 of Nagayama shows cross-linking being in a greater amount in a portion of the insulating ramparts in proximity to the substrate than in a portion of the insulating ramparts further away from the substrate.

17. Regarding claim 25, Nagayama discloses the opaque insulating layer having a thickness of about 1-2 $\mu$ m (col. 16, ln. 10-12).

18. Regarding claim 26, Nagayama discloses the insulating ramparts being made of a photoresist material (col. 8, ln. 28-29).

#### ***Allowable Subject Matter***

19. Claims 16 and 24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 16 and 24, the prior art of record neither shows or suggests an organic electroluminescent display comprising, in addition other limitations of the claims, the opaque insulating layer being made of polyimide with dark pigments.

#### ***Conclusion***

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nagayama (US 6,373,187) discloses a display panel using organic electroluminescent material. Nagayama (US 6,137,220) discloses an organic electroluminescent display with protective film and trapezoidal walls. Himeshima (US 6,469,439) discloses an organic electroluminescent device. Shirasaki (US 5,834,894) discloses a carrier injection type organic electroluminescent device.

**Contact Information**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Quarterman  
Examiner  
Art Unit 2879

kq   
17 March 2006

  
Joseph Williams  
Primary Examiner  
Art Unit 2879